

**INTERNATIONAL SEARCH REPORT**

International Application No  
PCT/EP2005/000422

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C07C69/54 C07C67/08 C07C67/26

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BEILSTEIN Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category <sup>a</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p><b>DATABASE HCAPLUS [Online]</b> 9 February 1998 (1998-02-09), AOSHIMA, KATSATARO: "Negative-working lithographic printing plate with improved printing durability" XP002324986 retrieved from STN Database accession no. 1998:76151 abstract; examples 203179-84-4P</p> <p>&amp; PATENT ABSTRACTS OF JAPAN vol. 1998, no. 06, 30 April 1998 (1998-04-30) &amp; JP 10 029292 A (FUJI PHOTO FILM), 3 February 1998 (1998-02-03) abstract; figures V-7,VI-11; examples BP-4</p> <p>-----</p> <p style="text-align: center;">-/-</p>	1-9
X		1-9

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

18 April 2005

Date of mailing of the international search report

18.08.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl  
Fax: (+31-70) 340-3016

Authorized officer

Dury, O

## INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/000422

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE REGISTRY [Online] 26 March 1998 (1998-03-26), XP002324987 retrieved from STN RN : 203179-84-4 abstract	1-9
A	US 5 326 826 A (ROESCHERT ET AL) 5 July 1994 (1994-07-05) column 8, lines 11-16,41-47; claim 1	1-13
A	US 5 623 014 A (BAUER ET AL) 22 April 1997 (1997-04-22) cited in the application column 1, lines 60-65; claims 1,5,6	1-13
A	EP 0 003 516 A (BASF AKTIENGESELLSCHAFT) 22 August 1979 (1979-08-22) cited in the application column 1, lines 35-40; claim 1 column 2, lines 10-15 column 6, lines 2-8	1-13

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/EP2005/000422

**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: **1-13 (part)**  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
**see supplemental sheet PCT/ISA/210**
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

**see supplemental sheet**

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
**1-13**

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

## Continuation of II.2

Claims: 1-13 (in part)

1. The current claims 1-13 pertain to dispersions or solutions of some polymer containing somewhere in its structure a defined quantity of a 3,4 dihydroxyphenyl group radical. Claim 1-13 thus relate to an inordinately large number of products, only a small proportion of which are supported by the description (PCT Article 6) and/or can be considered as having been disclosed in the application (PCT Article 5).
2. Moreover, the application describes only dispersions and does not explain how the claimed solutions can be attained. The claimed solutions are thus unsupported and/or insufficiently disclosed (PCT Articles 5 and 6).
3. In the present case the claims lack the proper support and the application lacks the requisite disclosure to such an extent that it appears impossible to carry out a meaningful search covering the entire range of protection sought. Therefore, the search was directed to the parts of the claims that appear to be supported and disclosed in the above sense, that is the parts concerning the following:

dispersions of a copolymer in water, organic solvents or mixtures thereof, characterized in that the copolymer contains at least 0.001 mol 3,4 dihydroxyphenyl groups (calculated at 109 g/mol) for 100g polymer, the copolymer being one produced by radical polymerization of i) ethylenically unsaturated monomers and ii) monomers according to claim 7, in conjunction with claims 6, 5 and 4.

The applicant is advised that claims relating to inventions in respect of which no international search report has been established normally cannot be the subject of an international preliminary examination (PCT Rule 66.1(e)). In its capacity as International Preliminary Examining Authority the EPO generally will not carry out a preliminary examination for subjects that have

not been searched. This also applies to cases where the claims were amended after receipt of the international search report (PCT Article 19) or where the applicant submits new claims in the course of the procedure under PCT Chapter II. After entry into the regional phase before the EPO, however, an additional search can be carried out in the course of the examination (cf. EPO Guidelines, Part C, VI, 8.5) if the deficiencies that led to the declaration under PCT Article 17(2) have been remedied.

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/EP2005/000422

The International Searching Authority has determined that this international application contains multiple (groups of) inventions, namely

**1. Claims 1-13**

dispersions or solutions of a polymer in water, organic solvents or mixtures thereof, characterized in that the polymer contains at least 0.001 mol 3,4-dihydroxyphenyl groups (at 109 g/mol) for 100g polymer.

---

**2. Claims 14-16**

radical polymerizable monomers with 3,4-dihydroxyphenyl groups and at least one radical polymerizable double bond.

---

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No  
PCT/EP2005/000422

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5326826	A 05-07-1994	DE AU BR CA DE EP JP JP MX ZA	4106357 A1 1125492 A 9200681 A 2061991 A1 59200671 D1 0501294 A1 3152986 B2 5105715 A 9200826 A1 9201456 A	03-09-1992 03-09-1992 10-11-1992 29-08-1992 01-12-1994 02-09-1992 03-04-2001 27-04-1993 01-08-1992 25-11-1992
US 5623014	A 22-04-1997	DE AU AU BR CA CN DE WO EP ES FI JP MX	4219384 A1 666556 B2 4321793 A 9306547 A 2137932 A1 1080936 A ,C 59304754 D1 9325588 A1 0644902 A1 2095057 T3 945835 A 7507820 T 9303238 A1	23-12-1993 15-02-1996 04-01-1994 15-09-1998 23-12-1993 19-01-1994 23-01-1997 23-12-1993 29-03-1995 01-02-1997 26-01-1995 31-08-1995 31-01-1994
EP 0003516	A 22-08-1979	AT AT CA DE DK EP ES JP JP JP NO US	362586 B 55779 A 1151786 A1 2960217 D1 31779 A ,B, 0003516 A1 477135 A1 1342177 C 54110248 A 61006861 B 790255 A ,B, 4250070 A	25-05-1981 15-10-1980 09-08-1983 23-04-1981 27-07-1979 22-08-1979 01-12-1979 14-10-1986 29-08-1979 01-03-1986 27-07-1979 10-02-1981